	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 1 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

1.0 PURPOSE:

To document the methodology of acquisition, installation, up keep and maintenance of all biomedical equipment at Apollo Hospitals, Secunderabad.

2.0 SCOPE:


The scope encompasses all Biomedical Equipment at Apollo Hospitals .

3.0 RESPONSIBILITY:

Vice-President -Materials, Chief Operating Officer ,Hospital Administrator HOD-Biomedical Engineering, Heads of Departments using Medical Equipment for patient care.

4.0 POLICY:

- All procurements of medical equipment have to be done in accordance with established procedures and against Pre-approved Capital equipment budgets.
- All medical equipment have to be received and installed with the involvement of the Central Receiving Stores and the Biomedical and Engineering and departments.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 2 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

- The Biomedical Engineering department is responsible for the upkeep, maintenance, Calibration and preservation of all records of all medical equipment in the hospital, as per their Standard Operating Procedures.

5.0 PROCEDURES:

Biomedical Equipment Management Plan (BMEP)

The following departments support is taken for the works mentioned from time to time by the biomedical department to fulfill the **BMEP**.

- **Materials/ Purchase department:**

This department is the point of contact for all suppliers and all the terms of sale including price, dispatch, delivery, payment and after sales services terms are finalized by this department and documented.


This department also receives the supplies directly in to the stores and then issues the equipment to the concern department.

- **Human Resource Department:**

This department plays a major role in implementing the training programs on effective and right utilization of the medical equipment to the nursing and paramedical staff.

- **User department:**

These departments are the final recipient of the equipment and they formulate the qualifications for the operators, conduct in house training to the operators and also report


	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 3 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

malfunction and breakdowns of the equipment to the biomedical engineering department for timely action and correction.

THE EQUIPMENT CYCLE:

The- BMEP encompasses the complete operation of the biomedical engineering department .The steps in the lifecycle of the medical equipment are.

- Specification, generation and selection of the right kind of equipment as per the benchmarked standards and quality.
- Acquiring and completing the pre-installation criteria and requirements for the Concern equipment with the technical support from supplier.
- Receive the equipment, generate an inventory code and take the material in to stock after physical examination.
- Get the equipment installed by the supplier and confirm on the working of the equipment as per specification.
- Prepare a preventive maintenance plan as per the established guidelines.
- Respond to equipment malfunction/breakdown calls.
- Implement the preventive maintenance program.
- Monitor/ act on the equipment hazard notices and recalls.
- Identify the equipment performance and breakdown trends.
- Based on the condemnation criteria initiate the replacement plan and discard the Equipment after necessary decontamination and disinfection procedures.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 4 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

CAPITAL EQUIPMENT PROCUREMENT PROTOCOL;

Step 1:

The process of capital equipment procurement starts with the user department. The user department feels the need for an addition or introduction of new equipment. The A10 form is filled and submitted to the Biomedical department.

Step 2:


The Biomedical department verifies the specifications and the viability of the equipment and presents the paper to the management for approval.

Step 3:

The leadership team analyses the proposal and recommends or withholds the procurement based on the need and other corporate guidelines. If recommended the purchase department is assigned the responsibility to call for the tender and finalize the order.

Step 4:

The user department and the proposal and recommend the make and brand of the machine from the received quotations. While recommending, emphasis is laid on the service on the service backup of the company and the reliability of the product. The purchase department negotiates on price and terms and releases the order.


	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 5 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

Step 5:


The equipment is received by the biomedical department, an inventory code is generated and the equipment is installed at the user department by the supplier.

BIO-MEDICAL PROTOCOL & CHECK LIST FOR NEW INSTALLATIONS;

1. Check the contents of delivery against the Purchase Order and ensure that all the parts have arrived. In case of short shipment note the short supply on the invoice and get it signed by the supplier. Biomedical should send to the supplier regarding the short shipment within 3 working days after noticing the short supply.
2. In case of any breakages to the consignment take appropriate steps to claim insurance.
3. Coordinate with the other user and service departments of the hospital and comply with the pre installation site requirements.
4. Liaison with the supplier and fix up the installation date and time.
5. Get the equipment installed and oversee the installation process.
6. Generate an equipment ID card and cord the machine. Stick the code stickers at appropriate place on the machine.
7. Ensure that there is no physical damage to the equipment after installation.
8. Get the equipment tested and demonstrated to the end users. In some cases application specialist may be required to train the users. In some other cases the purchase terms may include training of users at a different facility in India or a foreign land. Ensure that the user is satisfied with the performance of the system and get a conditional acceptance for the installation.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 6 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

9. Make sure that the equipment is supplied with both user and technical manual along with circuit diagrams. Not providing service manual should be considered as short shipment and installation should not be cleared.
10. Keep the equipment under observation for 2 weeks or 15 days from the date of conditional acceptance from the user.
11. If the equipment operation special steps or attention the same should be noted and Cards containing the information should be left with the machine.
12. After the observation period if all the part as mentioned in the purchase order are received and the equipment functions well without any manufacturing defect or functional defect then the biomedical dept should sign the installation report and forward the copy to purchase department for further processing of payment.
13. Biomedical has to ensure that the end user is satisfied with the installation and has acknowledged the same by signing on the installation report. Biomedical department if felt necessary may develop a universal installation report as per their format and get the same signed by both the user and the supplier with their stamp affixed.
14. It should be noted that no installation can be cleared by biomedical department in case of any short shipment or non functional equipment or non-supply of technical manual.
15. Biomedical should code the user and technical manuals and store them in safe place with a copy of the manual given to the end user department.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 7 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

BREAKDOWN MAINTENANCE PROTOCOL;


- Receive the breakdown call and fill the work report from with all relevant information.
- Attend to the machine and diagnose the problem.
- If necessary take the help of the supplier for diagnosing the problems.
- Repair or replace the parts and handover the working machine to the users and get their acceptance certificate.
- If parts are to be procured then follow the spare parts procurement protocol.
- Inform the end user the tentative time for the repairs so that alternate arrangements are made.

SPARE PARTS PROCUREMENT PROTOCOL;

- Identify the part required and contact the supplier of the equipment.
- Get the quotation for the part and process it to release a purchase order for the same.
- Follow-up with the supplier and procure the part.
- Certify the working of the part/ equipment from end user.

DIAGNOSIS AND REPAIR TIME TRACING PROTOCOL;

- This is more of an administrative protocol and is the compilation of the data from the breakdown call records submitted by the engineers/ technicians.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 8 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	


- The reasons for the timing are analyzed and methods for reducing the time are devised and implemented.

CONDEMNATION POLICY

Conditions for Condemnation Equipment will have to be followed if any one of the below given policy is applicable.

Criteria for Condemnation;

1. **Policy on Age :** If the age of the equipment is greater than 12 years or specifically different as mentioned during purchase for selected equipment
2. **Policy on recurring breakdown:** If the equipment has breakdown more than 12 times in the last year.
3. **Policy on Service non availability:** If the technical support for the equipment is not available from the supplier or its distributor or from the third party and in the event of the company stops representing in India.
4. **Policy for End of support:** If the manufacturer stops production of the model of the equipment and gives sufficient notice of withdrawal of model.
5. **Policy on obsolete Design:** If the make and model of the equipment are outdated and are found to be below our standards for use in our hospital.
6. **Policy on Non – usability:** If new models are procured and the old machine is no longer used for patient purpose.

	APOLLO HOSPITALS, SECUNDERABAD		FMS– 04
			Issue: C
	POLICY ON CLINICAL & SUPPORT SERVICE EQUIPMENT MANAGEMENT		Date: 06-01-2017
			Page 9 of 9
PREPARED BY: HOD-Biomedical		APPROVED BY: Chief Executive Officer	

7. **Policy on repair costs:** If the cost of repair of the equipment is greater than 50% of the equipment cost.
8. **Policy on Maintenance cost:** If the cost of maintenance of the machine is than 50% of the revenue earned from the machine.
9. **Policy on Non –availability of spares:** If the spares to repair the equipment are not available from the company or a third party.

PROCESS OF CONDEMNATION:

The equipment if falls in any of the above categories will to be condemned.

The following process is followed:-

1. The equipment details and the reason for condemnation are to be brought to the notice of the management and approval to be taken.
2. The HOD biomedical will give the recommendation for condemning. HOD biomedical along with the president, CEO, HOD finance and HOD purchase will be responsible for the decision.
3. If not already budgeted then suitable authority approval to be obtained for the replacement of the same.
4. The end user department has to be informed about the condemnation and the future course of action for replacement of the same.
5. The Finance department to amend the books of inventory and worth and other relevant records as necessary.